

IN THE CLAIMS:

Claims 1-8 (previously canceled)

Claims 9-18 (previously canceled)

Claims 19-23 (canceled)

Claim 24 (previously presented): A nucleic acid delivered into a cell comprising a gene for a transcription factor that is operably linked to a promoter activatable by a stress and by the transcription factor.

Claims 25-27 (canceled)

Claim 28 (new): A molecular circuit delivered into a cell, comprising (a) a gene encoding a transcription factor, the gene encoding the transcription factor being activatable by stress and by the transcription factor, and (b) a gene of interest, the gene of interest being activatable by the transcription factor.

Claim 29 (new): The molecular circuit of claim 28, wherein the activity of the transcription factor is regulated by a second stimulus other than stress.

Claim 30 (new): A molecular circuit delivered into a cell, comprising (a) a first gene encoding a first transcription factor, the first gene being activatable by stress, (b) a second gene encoding a second transcription factor, the second gene being activatable by both first and second transcription factor, and (c) a third gene encoding a product of interest, the third gene being activatable by the second transcription factor, whereby first and second transcription factor may be identical molecules.

- Claim 31 (new): A molecular circuit according to claim 33, wherein the activity of a transcription factor is regulated by a second stimulus other than stress.
- Claim 32 (new): An expression vector or a set of expression vectors comprising a molecular circuit according to any of claims 28-31.
- Claim 33 (new): A recombinant eukaryotic host cell comprising a molecular circuit according to any of claims 28-31.
- Claim 34 (new): A recombinant virus or a set of recombinant viruses comprising a molecular circuit according to any of claim 28-31.
- Claim 35 (new): A nucleic acid or set of nucleic acids delivered into a cell comprising (a) a first gene encoding a first transcription factor, the first gene being activatable by stress and (b) a second gene encoding a second transcription factor, the second gene being activatable by both first and second transcription factor, whereby first and second transcription factor may be identical molecules.
- Claim 36 (new): The molecular circuit of any of claims 28-31 and the nucleic acid of claims 24 and 35, wherein a gene for a transcription factor is selected from the group consisting of a gene for a mutated heat shock transcription factor, a chimeric transcription factor, a constitutively active transcription factor and a transcription factor active in the presence of a second stimulus other than a stress.